Planning Across the Fenceline

Rationale and Tools to help Service and Installation Planners work with State, Local and Regional Planners to help sustain installation mission capacity

Annette Stumpf

U.S. Army Corps of Engineers,

Engineer Research & Development Center

Construction Engineering Research Laboratory

Phone: 217-352-6511

E-Mail: annette.l.stumpf@erdc.usace.army.mil

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

Rational for Planning Across the Installation Fence Line

- Regional factors (urbanization; airspace, water, & other resource competition; and protected species habitat losses) can result in constraints to installation mission capacity.
- Coordinated planning, between installations and stakeholders (states, counties, towns, citizen groups, etc) can anticipate, avoid and/or mitigate these constraints.
- Communities value installations and will often willingly adjust plans to avoid mission constraints.
- Potential problems may require tradeoffs, but can often be resolved to the advantage of both communities and installations.
- Installations need to invest significant effort in building and maintaining planning partnerships across the fence line, but these efforts will have valuable and necessary payoff for sustainable installations.

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

Tools & Resource to Help Plan Across the Fence Line

- **SIRRA: Sustainable Installations Regional Resource Assessment** - database with geospatial interface to regional sustainability factors *(status: in review, available in April 2004)*
- **PONDS**: **P**roactive **O**ptions with **N**eighbors of **D**efense **Installations for S**ustainable Planning -web resources and examples options for community and installation planners to resolve issues *(status: prototype available now)*
- **Historic Trends Analysis**: data and approaches to examine historic regional land use changes *(procedures documented, available now)*
- **Land Evolution Simulations:** data and modeling tools to project future land changes, based upon specific scenarios *(in testing, can be done now ERDC assistance for any location)*
- **Mission Impact Assessment Analysis:** procedures and approaches to characterize and quantify impact of “encroachments” to mission capacity *(approach under development)*

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

SIRRA: Sustainable Installation Regional Resource Assessment

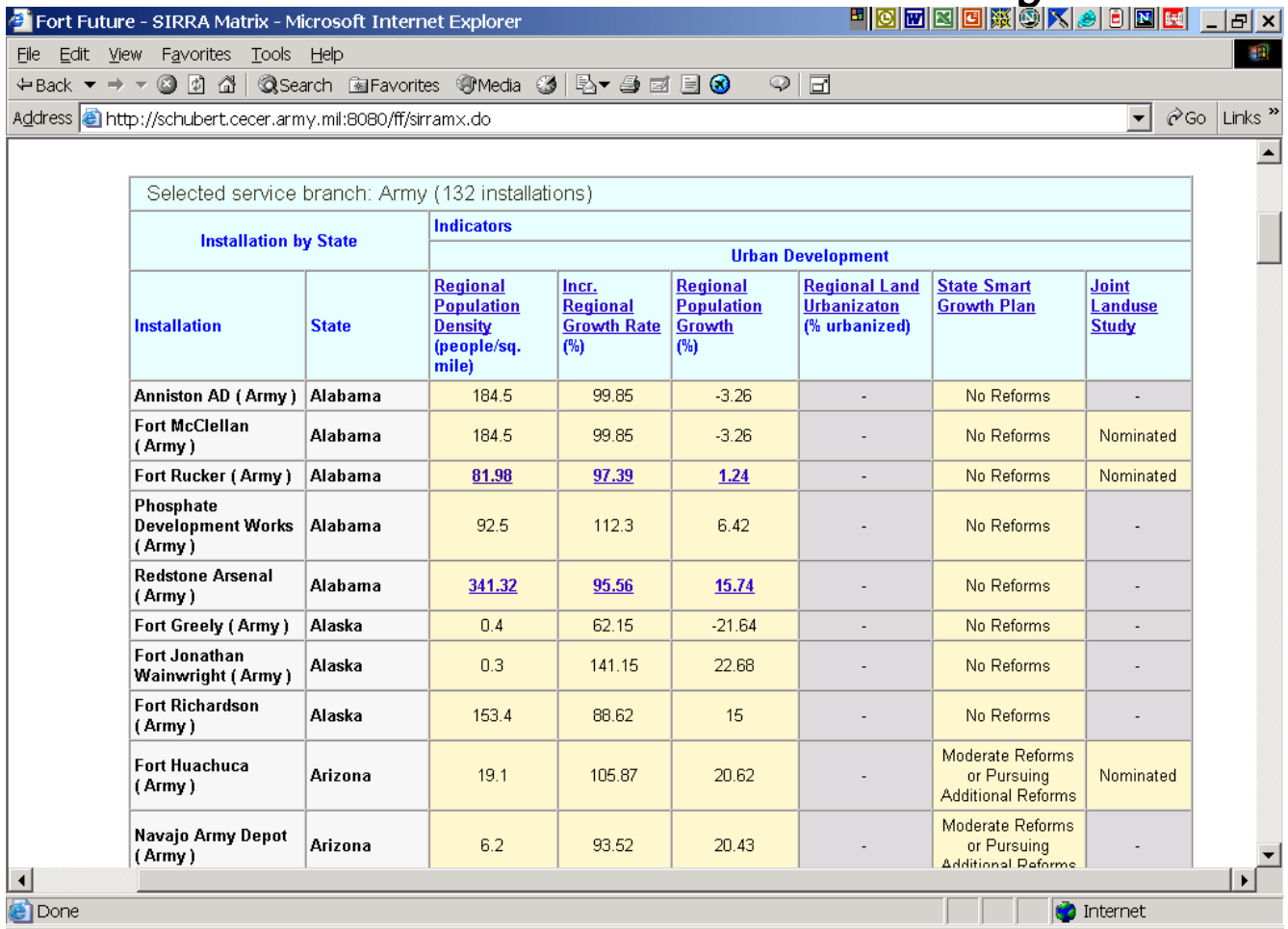
Types of Sustainability Issues

- Air Quality/Air Space
- Energy Resources
- Urban Development
- Protected Species
- Locational Factors
- Water Quality/Supply
- Regional Economics
- Quality of Life
- Infrastructure
- Security

National data sources (EPA, USGS, Bureau of Census), county and regional information, about 50 indicators for 214 Defense installations across the U.S.. (Later version will cover 400 Defense installations).

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

SIRRA: Web-Based Analysis Tool



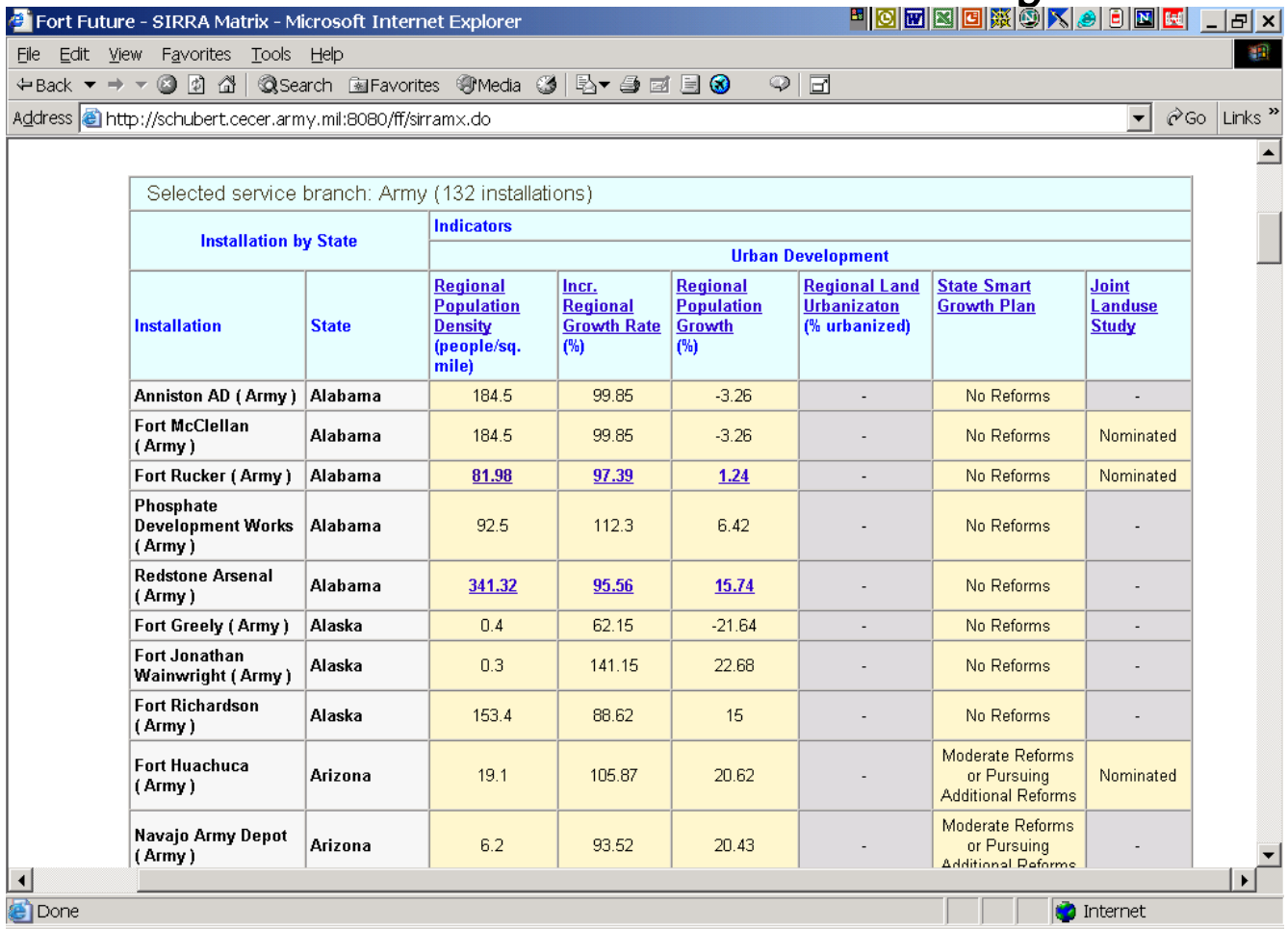
Selected service branch: Army (132 installations)

Installation by State		Indicators					
		Urban Development					
Installation	State	Regional Population Density (people/sq. mile)	Incr. Regional Growth Rate (%)	Regional Population Growth (%)	Regional Land Urbanizaton (% urbanized)	State Smart Growth Plan	Joint Landuse Study
Anniston AD (Army)	Alabama	184.5	99.85	-3.26	-	No Reforms	-
Fort McClellan (Army)	Alabama	184.5	99.85	-3.26	-	No Reforms	Nominated
Fort Rucker (Army)	Alabama	81.98	97.39	1.24	-	No Reforms	Nominated
Phosphate Development Works (Army)	Alabama	92.5	112.3	6.42	-	No Reforms	-
Redstone Arsenal (Army)	Alabama	341.32	95.56	15.74	-	No Reforms	-
Fort Greely (Army)	Alaska	0.4	62.15	-21.64	-	No Reforms	-
Fort Jonathan Wainwright (Army)	Alaska	0.3	141.15	22.68	-	No Reforms	-
Fort Richardson (Army)	Alaska	153.4	88.62	15	-	No Reforms	-
Fort Huachuca (Army)	Arizona	19.1	105.87	20.62	-	Moderate Reforms or Pursuing Additional Reforms	Nominated
Navajo Army Depot (Army)	Arizona	6.2	93.52	20.43	-	Moderate Reforms or Pursuing Additional Reforms	-

http://ff.cecer.army.mil/ff/resources.do

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

SIRRA: Web-Based Analysis Tool



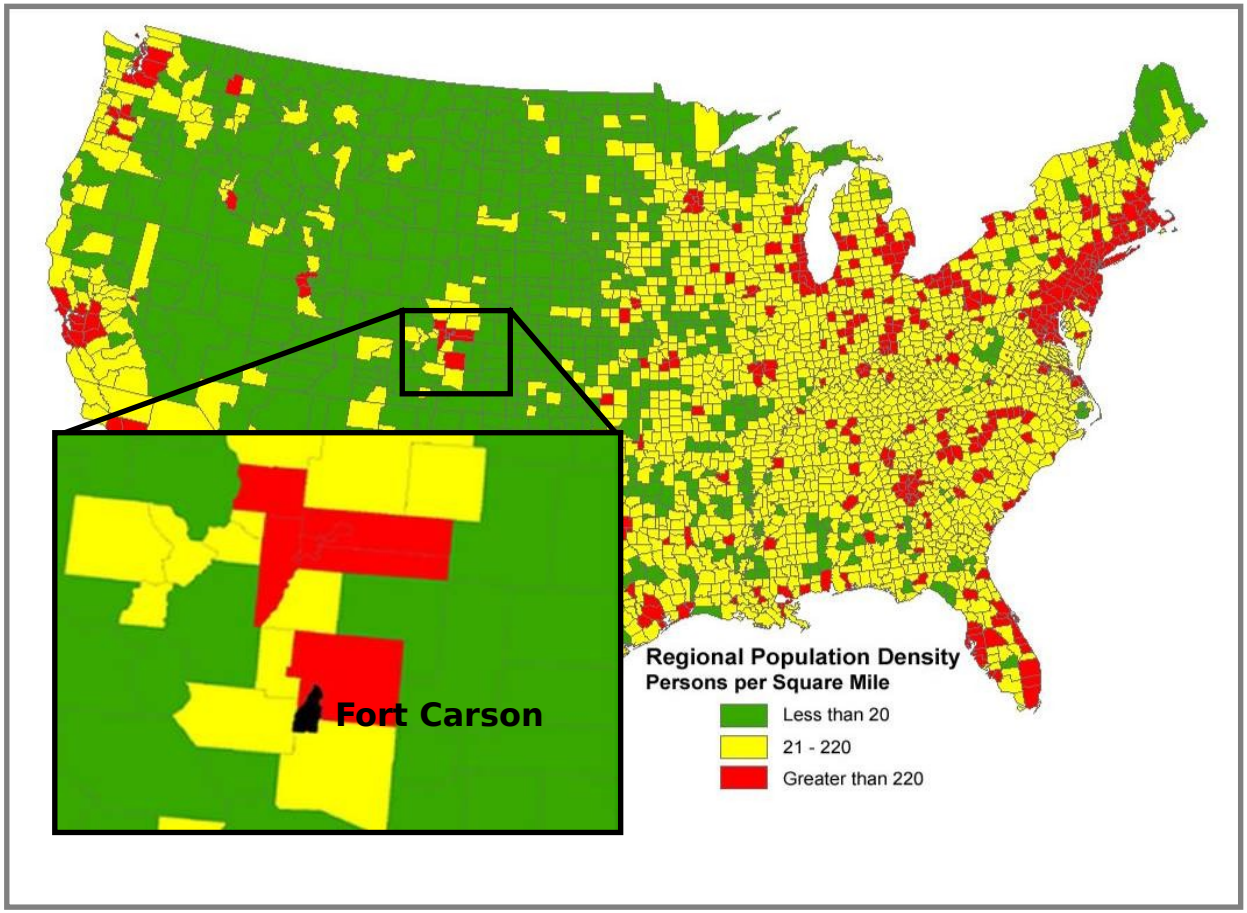
Selected service branch: Army (132 installations)

Installation by State		Indicators					
		Urban Development					
Installation	State	Regional Population Density (people/sq. mile)	Incr. Regional Growth Rate (%)	Regional Population Growth (%)	Regional Land Urbanizaton (% urbanized)	State Smart Growth Plan	Joint Landuse Study
Anniston AD (Army)	Alabama	184.5	99.85	-3.26	-	No Reforms	-
Fort McClellan (Army)	Alabama	184.5	99.85	-3.26	-	No Reforms	Nominated
Fort Rucker (Army)	Alabama	81.98	97.39	1.24	-	No Reforms	Nominated
Phosphate Development Works (Army)	Alabama	92.5	112.3	6.42	-	No Reforms	-
Redstone Arsenal (Army)	Alabama	341.32	95.56	15.74	-	No Reforms	-
Fort Greely (Army)	Alaska	0.4	62.15	-21.64	-	No Reforms	-
Fort Jonathan Wainwright (Army)	Alaska	0.3	141.15	22.68	-	No Reforms	-
Fort Richardson (Army)	Alaska	153.4	88.62	15	-	No Reforms	-
Fort Huachuca (Army)	Arizona	19.1	105.87	20.62	-	Moderate Reforms or Pursuing Additional Reforms	Nominated
Navajo Army Depot (Army)	Arizona	6.2	93.52	20.43	-	Moderate Reforms or Pursuing Additional Reforms	-

http://ff.cecer.army.mil/ff/resources.do

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

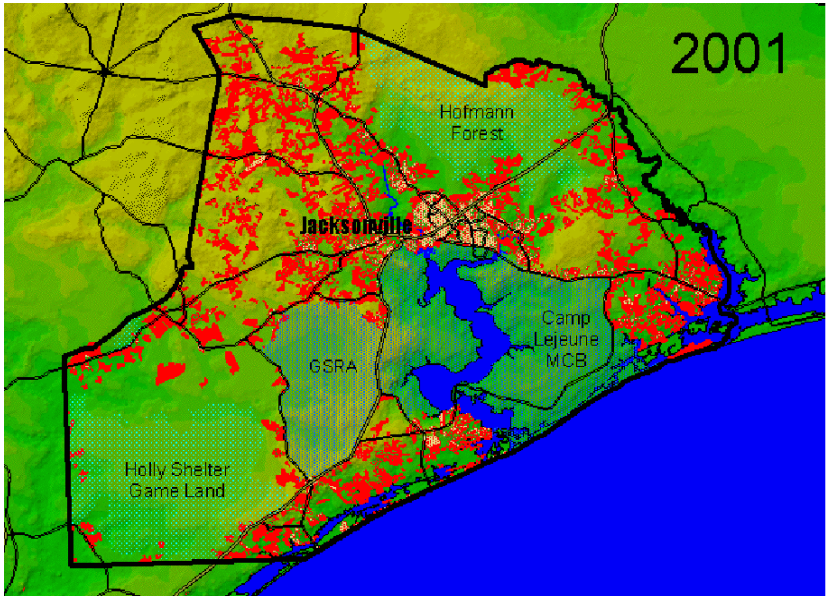
SIRRA: GIS Display of Data

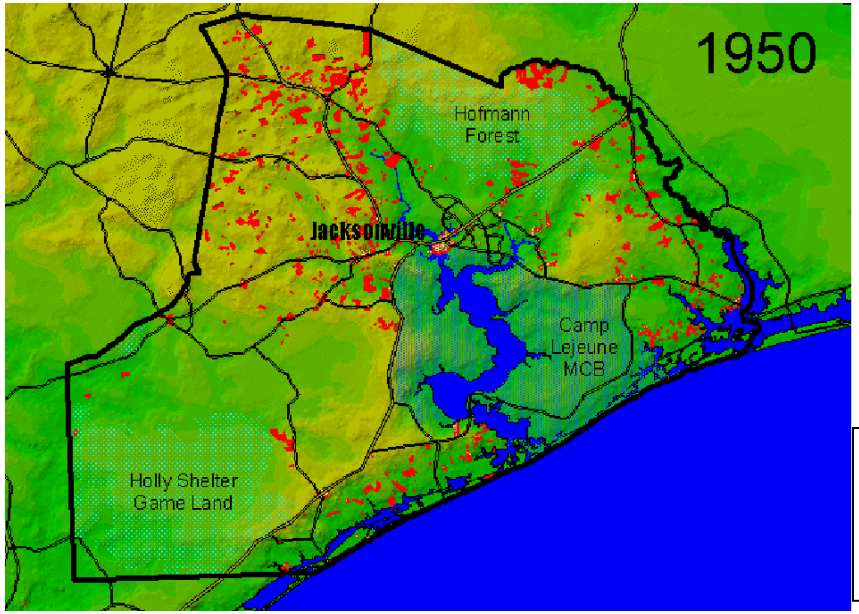


http://ff.cecer.army.mil/ff/resources.do

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

Historic Trends Analysis



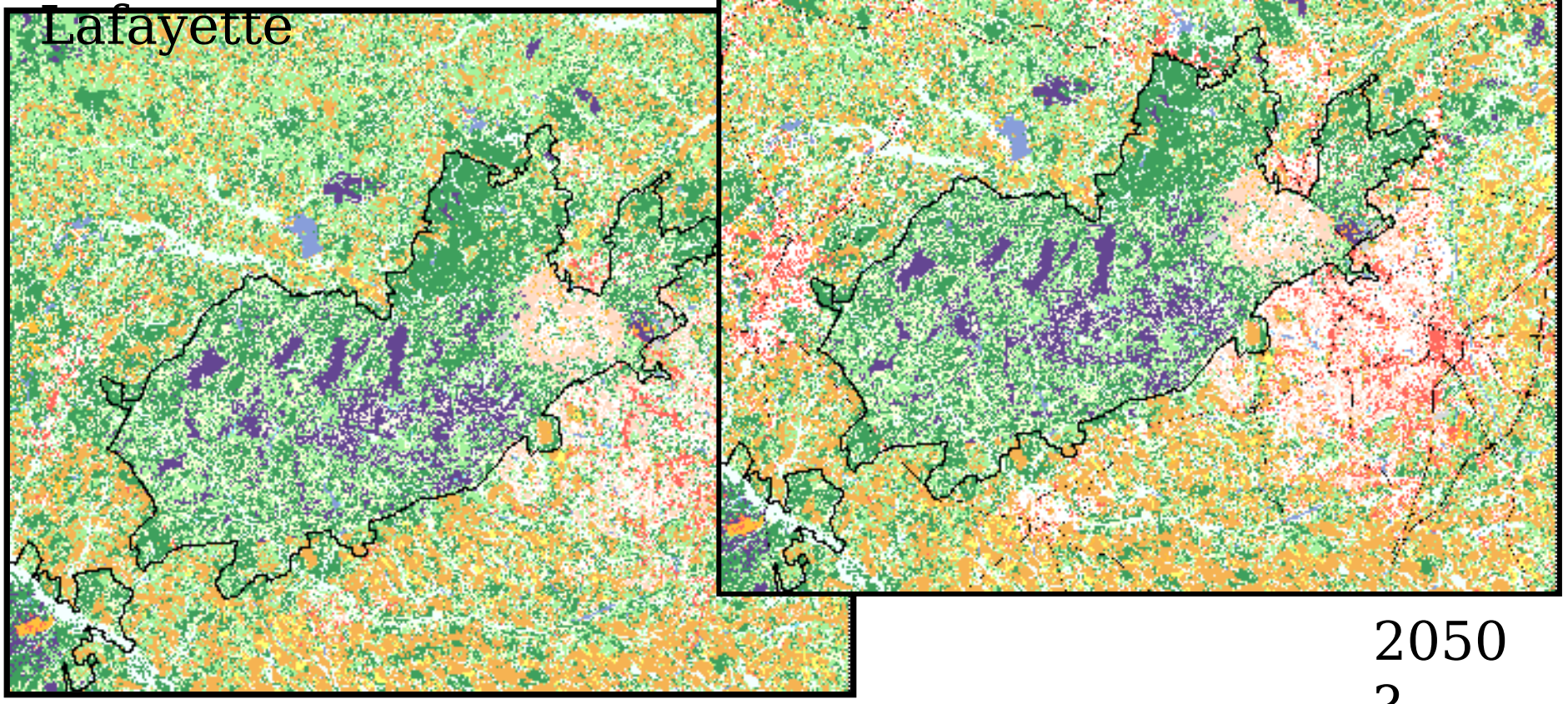


Historic urban growth (red) in the vicinity of Camp Lejeune, N.C.

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

LEAM: Land Evolution Si

2000 Fort Bragg & Lafayette



2050

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

16DEC03

Different Potential Futures

Cause-Effect Chain

Training/Testing Capacity = f (Soil, weather, weapons, doctrine, terrain, vegetation, habitat, regional habitat, noise effects, dust/smoke effects, ambient light, RFI)

regional habitat = f (urban patterns)
noise effects = f (urban patterns)
dust/smoke effects = f (urban patterns)
ambient light = f (urban patterns)
RFI = f (urban patterns)

Urban Patterns = f (free-market land development)

Development = f (regional land use investments and policies)

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

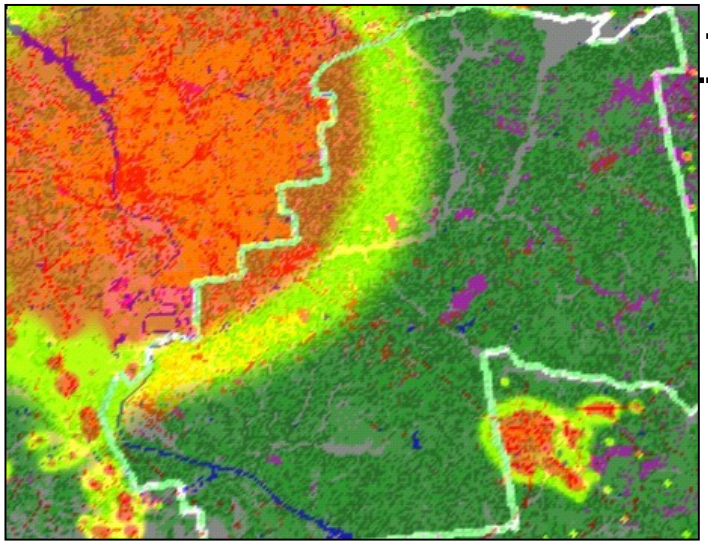
Therefore:

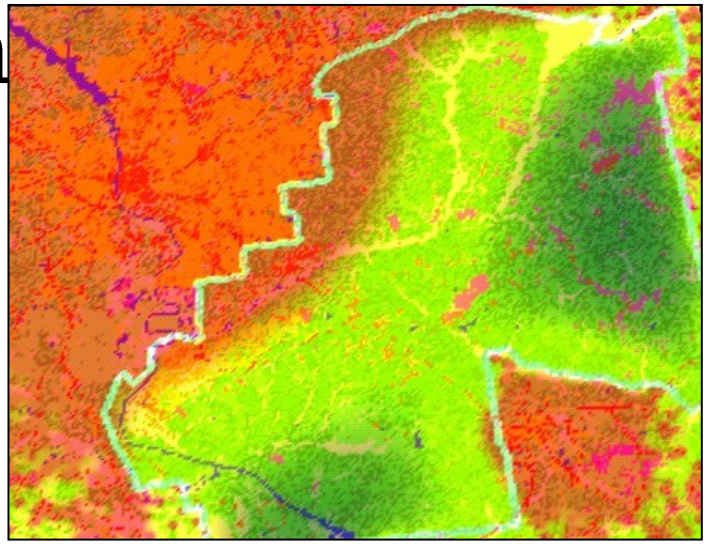
Future Training and testing capacity = f(Past regional land use investments and policies)

- Installation planners must
  - Aggressively participate in state, county, and local planning
  - Test proposed investments and policies with respect to the ability to sustain training/testing

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

Mission Impact Assessment





Noise annoyance contour growth in response to projected urban growth around Fort Benning - limiting training opportunities

Similar analyses for RFI, smokes, dust, and night light

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

Resources for Case Studies and Guidelines:

Military:

- National Governors Association (NGA)
- Joint Land Use Studies (JLUS)
- Military Installations

www.nga.org

Non-Military

- Other Federal Agencies (NPS, BLM, USDA …)
- Nature Conservancy
- American Planning Association
- Smart Growth Network
- Local Communities

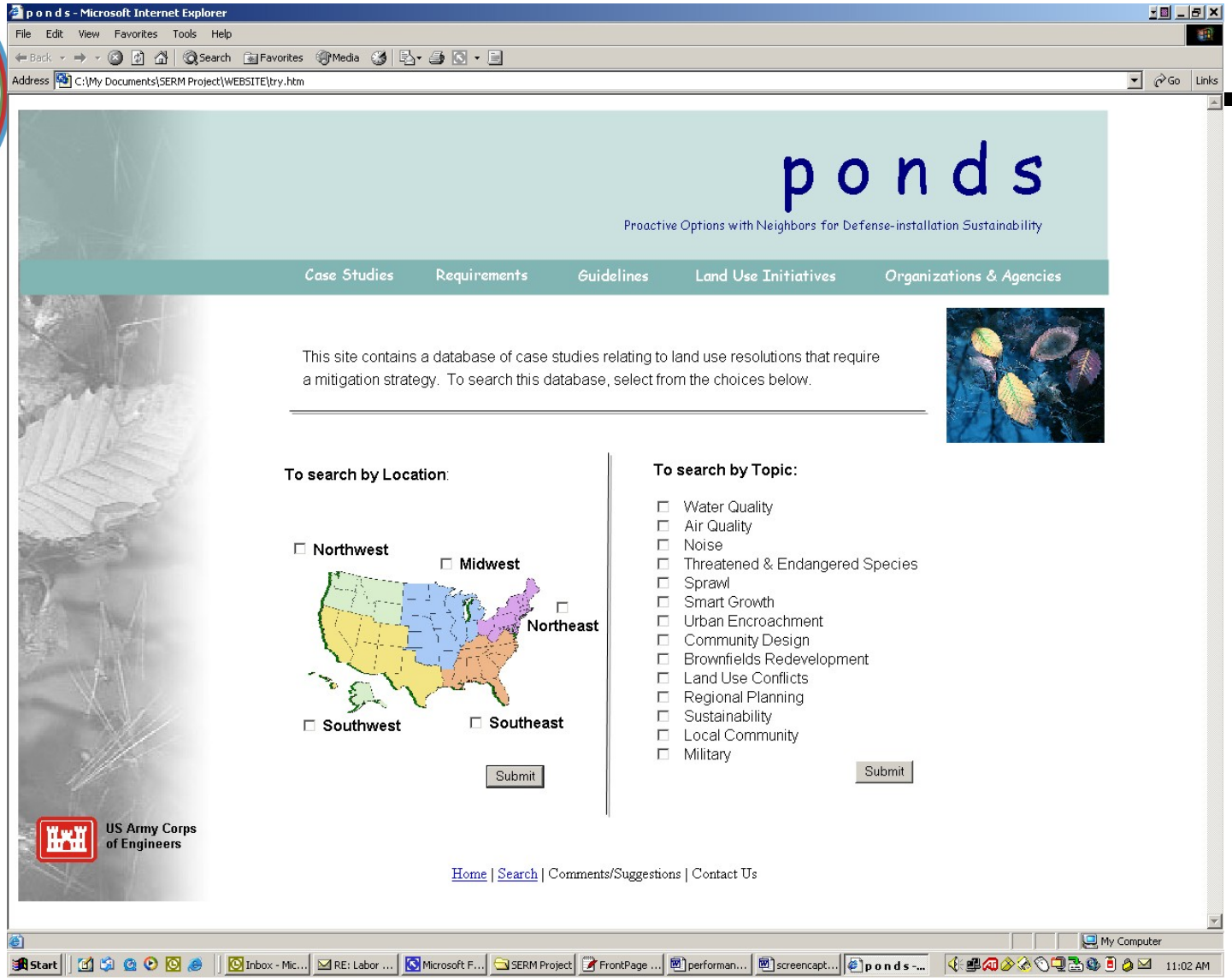
http://www.smartgrowth.umd.edu

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

p o n d s - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address N:\Research\Archys\land mitigation\website\home.htm
p o n d s
Proactive Options with Neighbors for Defense-installation Sustainability
Case Studies
Requirements
Guidelines
Land Use Initiatives
Organizations & Agencies
Urban development, threatened and endangered species, noise and many other factors can effect how the military is able to fulfill mission requirements on Department of Defense (DoD) installations. The DoD has become increasingly aware of its responsibility to be proactive in their approach to mitigating land use concerns with its neighbors. The purpose of this website is to help the DoD determine the best practices for handling land use issues on their installations. This website includes:
A database listing case studies illustrating wide range of land mitigation strategies within and outside of the DoD
Guidelines for mitigating land use situations and conflicts based on the lessons learned from the case studies.
Link to agencies, organizations or land use initiatives related to land use mitigation
US Army Corps of Engineers
Home | Search | Comments/Suggestions | Contact Us
Error on page.
Local intranet
Start
12:53 PM

http://ff.cecer.army.mil/ponds

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil



http://ff.cecer.army.mil/ponds

p o n d s - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address \\dragon\root\Research\Archys\land mitigation\website\requirements.htm
Go Links
p o n d s
Proactive Options with Neighbors for Defense-installation Sustainability
Case Studies Requirements Guidelines Land Use Initiatives Organizations & Agencies
Federal Requirements:
Planning: Includes planning for Natural Resources, TES, risk management, and planning under the Sikes Act and the Clean Air Act.
Reporting: Includes disclosure of existing impacts.
Operational: Includes managing operations (such as prescribed burning) with Federal requirements (such as the Clean Air Act).
Coordination: Includes coordinating Federal requirements with many agencies and services at the Federal level.
Other
State Requirements:
Planning: Includes planning and zoning requirements at the state level.
Reporting: Includes disclosure of existing impacts.
Operational:
Coordination: Includes coordination between states and installations.
Other
Local Community Requirements:
Planning: Includes planning and zoning requirements at the local level.
Development: Working with basic zoning, zoning ordinances, and sub-division requirements at the local level.
Other
US Army Corps of Engineers
Home | Search | Comments/Suggestions | Contact Us
Error on page.
Local intranet
Start
CorelDRAW 11 - [N:\Rese...
website
p o n d s - Microsoft In...
Document1 - Microsoft W...
12:54 PM

http://ff.cecer.army.mil/ponds

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil

SERM Points of Contact

Bill Goran, Jim Westervelt, Elisabeth Jenicek, Suzanne Loechl, Robert Lozar, Alan Anderson, Annette Stumpf

Engineering Research and Development Center

Construction Engineering Research Laboratory (CERL)

P.O. Box 9005, Champaign, IL, 61826-9005

Phone 1-800-USA-CERL.

Web:

http://www.cecer.army.mil/KD/SERM

Ms. Stumpf/217-352-6511/ERDC/Annette.L.Stumpf@erdc.usace.army.mil